

CZECHOSLOVAKIA / INDIA

TRIVEDI, B.; VOLIGER, L.; MOTL, O.; Institute of Organic and Biological Chemistry, Czechoslovak Academy of Sciences (Ustav Organické Chemie a Biochemie CSAV), Prague; Pharmacological Institute, Czechoslovak Academy of Sciences (Farmakologický Ustav CSAV), Prague.

"A Spasmolytic Substance Obtained From the Drug "Tang-kuej" (*Angelica Sinensis* Diels)."

Prague, Ceskoslovenska Farmacie, Vol 15, No 4, May 66, pp 206-209

Abstract [Authors' English summary modified]: Pharmacological action of chloroform, ethanol, and light petroleum extracts from the Chinese drug "tang-kuej" was investigated. The light petroleum extract has a spasmolytic, analgesic, central depressant, and hypothermic effect. Ligustilid was identified as the active substance in the spasmolytic effect. Ethanol extract was as active as the light petroleum extract; chloroform extract was less active. 3 Figures, 2 Tables, 3 western, 1 Czech, 5 Japanese, 5 Chinese references. (Manuscript received 18 May 65).

1/1

L 13212-66

ACC NR: AP6006100

SOURCE CODE: CZ/0053/65/014/004/0319/0320

AUTHOR: Volicer, L.; Motl, O.; Trivedi, B.

ORG: Institute of Pharmacology, CSAV, Prague (Farmakologicky ustav); Institute of Organic Chemistry and Biochemistry, CSAV, Prague (Ustav organicke chemie a biochemie CSAV) 26p

TITLE: Pharmacology of extracts from *Angelica sinensis* and isolation of ligustilid  
[This paper was presented during the Twelfth Pharmacologic Days, Smolenice, 29 Jan 65.]

SOURCE: Ceskoslovenska fysiologie, v. 14, no. 4, 1965, 319-320

TOPIC TAGS: processed plant product, pharmaceutical, drug, lactone, pharmacology, drug effect

ABSTRACT: "Tang kuej", an ancient Chinese remedy for dysmenorrhea and related diseases is probably prepared from the root of *Angelica sinensis* Diels, and from this plant the authors isolated an unsaturated bicyclic lactone with potent spasmolytic effect in vitro and in vivo. Orig. art. has: 1 figure.  
[JPRS]

SUB CODE: 06 / SUBM DATE: none / OTH REF: 004

jrn

Card 1/1

VOLICER, L.

Angiotensin. Cesk. farm. 14 no.8:431-437 0 '65.

1. Farmakologicky ustav Ceskoslovenske akademie ved, Praha.

VOLICER, Ladislav, Doc. MUDr

Roentgenologic diagnosis of internal biliary fistulas. Cas.lek.  
cesk. 91 no.48:1433-1435 28 Nov 52.

1. Ze IV. vnitřní klin. K. U. Prednosta: prof. dr. B. Prusik.  
(BILIARY TRACT, fistula,  
internal, diag., x-ray)  
(FISTULA,  
biliary internal, x-ray diag.)

VOLICER, Ladislav, doc., MUDr.

Industrial accidents in railroad transportation. Zel dop tech 10  
no.10:292-293 '62.

VOLICER, L.; JANKU, I.; MOTL, O.

Some central effects of schizandra chinensis extract, Activ,  
nerv. sup. 5 no.2:165-166 My '63.

1. Farmakologicky ustav CSAV, Praha - Ustav organicke chemie  
a biochemie, Praha.

(CENTRAL NERVOUS SYSTEM) (NICOTINE)  
(ANALEPTICS) (AMPHETAMINE)  
(METHYLPHENIDATE)

CZECHOSLOVAKIA

SVIHOVEC, J.; VOLICER, L.; BABEJ, M.; Chair of Pharmacology (Katedra Farmakologie) FDL [Abbreviation not explained], Pharmacological Institute, Czechoslovak Academy of Sciences (Farmakologicky Ustav CSAV), Prague.

"The Influence of Reserpine on the Pressor Effect of Angiotensin, Noradrenalin, and Tyramine."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 5, Sep 66, p 395

Abstract: The pressor effect of angiotensin (AT), noradrenalin (NA), and of tyramine (TY) was investigated on reserpinized dogs. Reserpinization increased the pressor effect of AT and NA, but decreased that of TY. An infusion of NA in reserpinized dogs somewhat increased the effect of AT, and completely restored the effect of TY. Infusion of AT did not change the effect of NA. Reserpinization did not affect the action of AT and NA on heart beat frequency, but eliminated the action of TY on normal tachycardia. 2 Western, 1 Japanese reference. Submitted at 14 Days of Pharmacology at Smolenice 15 Feb 66.

1/1

BACHURIN, I. (Rostov-na-Donu); VOLICHENKO, A., kand.ekon.nauk, dotsent  
(Rostov-na-Donu); MISHCHENKO, V., starshiy prepodavatel' (Rostov-  
na-Donu)

The money-box has been stolen. Izobr.i rats. no.5:28 My '62.

(MIRA 15:5)

1. Nachal'nik planovogo byuro upravleniya snabzheniya zavoda  
"Rostsel'mash" (for Bachurin). 2. Rostovskiy institut sel'khozmashi-  
nostroyeniya (for Volichenko, Mishchenko).  
(Rostov-on-Don--Agricultural machinery industry)



VOLICHENKO, A. (Rostov-na-Donu); BACHURIN, I. (Rostov-na-Donu)

"Bureau of economic analysis staffed with volunteers" by P.A. Zhukov, V.I.Ganshtak; "Volunteer economists in the effort to utilize the potentials of production." Reviewed by A.Volichenko, I.Bachurin. Vop. ekon. no.8:133-135 Ag '62. (MIRA 15:8)  
(Ural Mountain region--Industrial management) (Zhukov, P.A.)  
(Ganshtak, V.I.)

VOLICHENKO, Aleksandr Leont'yevich; TOROPCHIN, N. M., red.

[Plant and the State Bank] Zavod i Gosbank, M.: Gosstatizdat  
Donu, Rostovskoe knizhnoe izd-vo, 1962. 27 p.  
(MIRA 18:2)

Distr: 4E3d 7

✓ The alkylation of phenols and cresols by olefins. O. Volcu and P. Popescu. Acad. rep. populare Romine, Studii cercetari chim. 7, 557-602(1959).—The parameters of the alkylation of phenols and cresols by high mol. wt. olefins were studied. The olefins employed were isooctene and dodecene, 90-98% H<sub>2</sub>SO<sub>4</sub> was the catalyst, and the starting temp. was 40-42° (the olefins were added dropwise to the phenol-H<sub>2</sub>SO<sub>4</sub> mixt.). Max. yields of 72.5% isooctylphenol, 61.7% dodecylphenol, 63.2% isooctylcresol, and 44.3% dodecylcresol were obtained at optimum conditions. Repeated alkylations raised the yields to 95%. 30 references. (Summaries in Russian and French). M. Lapidot

4.  
1-BW(BW)  
2-JAT(WB) (MAY)  
1

VOLIDINA, M. A.

Nametkin, S. S., Volidina, M. A., "Studies in the field of Isomeric Conversions,  
VII. Dehydration of Diphenylcyclopentylcarbinol and Diphenylcyclohexylcarbinol."  
(p. 2033)  
(Chem Lab, Moscow State Univ)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1948, Volume 18, (80),  
No. 11

VOLICHENKO, A.

Control system of the State Bank over wage funds of industrial enterprises. Den.1 kred. 17 no.4:31-35/ Ap '59.

(MIRA 12:8)

(Banks and banking) (Wages)

L 13234-66 EWT(m)/EWP(j)/EWA(c)

RM

ACC NR: AP-006056

SOURCE CODE: CZ/0053/65/014/004/0300/0300

AUTHOR: Krsiak, M.; Janku, I.; Volicer, L.

ORG: Institute of Pharmacology, CSAV, Prague (Farmakologicky ustav CSAV)

TITLE: Correlation of some central effects of 6-azauracil and its riboside [This paper was presented during the Twelfth Pharmacologic Days, Smolenice, 27 Jan 65.]

SOURCE: Ceskoslovenska fysiologie, v. 14, no. 4, 1965, 300

TOPIC TAGS: heterocyclic base compound, conditioned reflex, drug effect, pharmacology, nervous system drug, organic nitrogen compound, carbohydrate

ABSTRACT: Both azauracil and azauracil riboside had conditioned reflex-facilitating effect, also induced motor incoordination and analgesia; an antinicotinic effect was present at the lowest dose and apparently specific; the base was stronger than the riboside. [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 005

Card 1/1

VOLIK, A.

A second profession. NTO 3 no.12:40 D '61. (MIRA 15:1)

1. Predsedatel' soveta nauchno-tekhnicheskogo obshchestva  
tresta Chernomorgidrostroy, g. Odessa.  
(Odessa—Building—Technological innovations)

1. VILIK, A. D.: Inzh.
2. USSE (600)
4. Tanks
7. Pneumatic indicator of slurry tank level.  
TSement 18 No. 1, 1952
- 9a. Monthly List of Russian Accessions. Library  
Of Congress, June 1952. Unclassified.



LYSENKO, A.T.; VOLIK, A.F.

Continuous harvesting. Zemledelie 26 no.7:40-43 J1 '64. (MIRA 18:7)

1. Dnepropetrovskiy sel'skokhozyaystvennyy institut.

VOLIK, A.F., dotsent

Basis for the parameters of a high-speed checkrow planter. Mekh.i  
elek.sots.sel'khoz. 20 no.4:24-26 '62. (MIRA 15:8)

1. Dnepropetrovskiy sel'skokhozyaystvennyy institut.  
(Planters (Agricultural machinery))

VOYAK, A.A. [Volyk, A.A.], Inzh. Tekhn. Nauk

Dnepropetrovsk efficiency experts are improving checkrow  
planters. Mekh.sil'hosp. 10 no.2:5-8 F '59. (MIRA 12:6)  
(Planters (Agricultural machinery))

VOLIK, A. F.

VOLIK, A. F. - "Investigation of Mechanical-Technological Foundations of the Operation of Square-socket Sowing Machines." Min of Higher Education USSR, Ukraine Order of Labor Red Banner Agricultural Acad, Kiev, 1955 (Dissertations For Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

VOLIK, A.F. [Volyk, A.F.], dotsent

Use of high-speed harvester. Mekh. sil'. hosp. 13 no.8:3-4 ag '62.  
(MIRA 15:7)

(Harvesting machinery)

VCLIK, A.G., inzh.; GUREVICH, D.Ye., inzh.; LAVRINOVICH, Ye.V., kand. tekhn. nauk; SAVINOV, O.A., doktor tekhn. nauk

Glue concrete joints of pipe piles. Transp. stroi. 15 no.5:49-51  
My '65. (MIRA 18:7)

1. Chernomorgidrostroy (for Volik, Gurevich). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhnicheskikh i sanitarno-tekhnicheskikh rabot (for Lavrinovich, Savinov).

VOLIK, A.G., inzh.; PETRENKO, I.P., inzh.

Use of epoxy resins in ship repair. Transp. stroi. 12 no.5:31-32  
My '62. (MIRA 15:6)

(Epoxy resins)  
(Ships—Maintenance and repair)

GUREVICH, D.Ye.; VOLIK, A.G.

Construction of pier-type moorings. Transp. stroi. 13  
no.2:23-27 F '63. (MIRA 16:3)

1. Glavnyy tekhnolog Chernomorgidrostroya (for Gurevich).
2. Nachal'nik tekhnicheskogo otdela Chernomorgidrostroya (for Volik).  
(Precast concrete construction)  
(Piers)



VOLIK, A.G., inzh.

Hydraulic unit for tensing reinforcement for pile-shells with a  
diameter of 600 mm. Transp. stroi. 14 no.4:49-50 Ap '64.

(MIRA 17:9)

VOLIK, A.G., inzh.; SHEKHTERMAN, Sh.Sh., inzh.

Device for cutting the heads of piles. Transp. stroi. 1/  
no.10:21-23 O '64. (MIRA 18:3)

VOLIK, A.G., inzh.; PETRENKO, I.P., inzh.

Anchoring pontoon with piling. Transp. stroi. 12 no.3:52 Mr  
'62. (MIRA 16:11)

VOLIK, A.G., inzh.

Hydraulic unit for tensioning reinforcements of shells with a  
diameter of 1.6 m. Transp. stroi. 14 no.5:53-54 My '64.  
(MIRA 18:11)

GUREVICH, D.Ye., inzh.; VOLIK, A.G., inzh.

Asphalt and concrete mattresses for strengthening the  
underwater slopes of rivers and reservoirs. Transp.stroi.  
14 no.12:19-22 D '64. (MIRA 19:1)

VOLIK, A.G., inzh.

Truck for transporting parts in the repair of automotive machinery.  
Transp. stroi. 12 no.6:54 Je '62. (MIRA 15:6)  
(Hand trucks)

GUREVICH, D.Ye., inzh.; VOLIK, A.G., inzh.

Raise the level of prefabrication of hydraulic structures in open  
roadsteads. Transp. stroi. 12 no.2:26-27 F '62. (MIRA 15:7)  
(Hydraulic structures) (Precast concrete construction)

VOLIK, A.G., inzh.

Equipment for prestressing the reinforcement of reinforced  
concrete piles. Transp. stroi. ll no.5:22-24 My '6.

(MIRA 14:6)

(Prestressed concrete) (Concrete piling)



VOLIY, A.G., inzh.

Construction of a precast mooring quay in the commercial harbor of  
Nikolayev. Transp. stroi. 10 no.10:26-28 O '60. (MIRA 13:10)  
(Nikolayev--Docks)

VOLIK, A.G.; MEL'NIKOV, P.S.

Preventing leaks when installing the bottoms of caissons. Transp.  
stroil. 12 no.12:50 D '62. (MIRA 16:1)

1. Nachal'nik tekhnicheskogo otdela Chernomorgidrostroya (for  
Volik).

(Caissons)

VOLIK, A.L.

Drilling practices in the Kuban. Neftianik 7 no.4:8 Ap '62.  
(MIRA 15:11)

1. Nachal'nik otдела bureniya Upravleniya neftyanoy i gazovoy  
promyshlennosti Krasnodarskogo soveta narodnogo khozyaystva.  
(Kuban--Oil well drilling)

KARAYEV, Ali-Ovsat; VOLIK, Aleksey Lukich; KOL'TSOV, Oleg Pavlovich;  
BUYANOVSKIY, N.I., red.; KAESHKOVA, S.M., ved. red.;  
YAKOVLEVA, Z.I., tekhn. red.

[Drilling oil and gas wells; practice of the petroleum workers  
of Krasnodar Territory]Burenie nef'tianykh i gazovykh skvazhin;  
opyt nef'tianikov Krasnodarskogo kraia. Moskva, Gostoptekhizdat,  
1962. 170 p. (MIRA 15:12)  
(Krasnodar Territory—Oil well drilling)

MELASHENKO, I.P., kand.tekhn.nauk; VOLIK, A.S., inzh.

Study of overheating and transient impedance of SOK-15 and SOM-10  
metal ceramic contactors in short-term and continuous operation.

Elektrotehnika 36 no.3:34-36 Mr '65.

(MIRA 18:6)

L 00940-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6021060 (A, N) SOURCE CODE: UR/0292/66/000/003/0041/0044

AUTHOR: Melashenko, I. P. (Candidate of technical sciences);  
Volik, A. S. (Engineer)

42

ORG: none

TITLE: Metal-ceramic contacts operating under intermittent-continuous conditions

SOURCE: Elektrotehnika, no. 3, 1966, 41-44

TOPIC TAGS: electric ~~contact~~ <sup>device</sup> ~~metal ceramic contact~~ <sup>material, silver</sup>

ABSTRACT: Contact resistance and temperature rise; for various contact pressures (2, 5, 10, 20 g/amp) between silver and SN40<sup>L</sup>-composition sphere-to-plane contact pieces, were experimentally investigated. Simultaneously, 96 contact pairs were tested; cycle duration, 11-13 hrs; of them, actual current

Card 1/2

UDC: 621.318.066.6:669.22.001:2

L 09940-67  
ACC NR: AP6021060

flow for 7 hrs; overall test time of each pair, 350 hrs. Initial temperature rise: 40C (140 amp) and 80C (240 amp). Findings: (1) Silver contacts current-heated from 35C to 94C at pressures of 2-20 g/amp have a low and stable contact resistance; however, at higher temperatures silver contacts may prove unreliable due to the changed mechanical characteristics of the metal; (2) Composition SN40 contacts current-heated from 40C to 165C are reliable at pressures of 5-20 g/amp; at 2 g/amp, they are unreliable; 165C is regarded as the upper temperature limit for these contacts. Orig. art. has: 9 figures and 1 table.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 003  
// /

L 2257-66

ACCESSION NR: AP5008326

S/0103/65/026/003/0539/0544

AUTHOR: Volik, B. G. (Moscow)

TITLE: Dynamic characteristics of the pipeline which is a part of a heat-process control loop

SOURCE: Avtomatika i telemekhanika, v. 26, no. 3, 1965, 539-544

TOPIC TAGS: heat process control, pipeline dynamic characteristic

ABSTRACT: Formulas are developed for the transfer functions of a fluid-carrying pipeline with (26) and without (25) taking into account pipe-wall heat conduction. The formulas are obtained by Laplace-transforming the heat-balance equations for a dx element of the pipe. Both cases are compared in the form of a ratio of their amplitude-frequency characteristics; this ratio increases with thicker wall, longer pipe, and lower speed of the fluid. The findings are claimed to be applicable to control-system piping, two-loop nuclear-power piping, etc. The author wishes to thank S. I. Bernshteyn and G. L. Polyak for their valuable comments in discussing the results." Orig. art. has: 2 figures and 50 formulas.

Card 1/2



L. 2257-66

ACCESSION NR: AP5008326

ASSOCIATION: none

SUBMITTED: 09Jan64

NO REF SOV: 005

ENCL: 00

SUB CODE: TD, IE

OTHER: 000

Cird 2/2 *dy*

58  
VOLIK, B. G.

PHASE I BOOK EXPLOITATION SOV/6012

Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki.

Avtomaticheskoye regulirovaniye i upravleniye (Automatic Regulation and Control) Moscow, Izd-vo AN SSSR, 1962. 526 p. Errata slip inserted. 9000 copies printed.

Resp. Ed.: Ya. Z. Tsypkin, Professor, Doctor of Technical Sciences;  
Ed. of Publishing House: Ye. N. Grigor'yev; Tech. Ed.: I. N. Dorokhina.

PURPOSE: This book is intended for scientific research workers and engineers concerned with automation.

COVERAGE: The book is a collection of articles consisting of papers delivered at the 7th Conference of Junior Scientists of the Institute of Automation and Telemekhanika, Academy of Sciences USSR, held in March 1960. A wide range of scientific and technical questions relating to automatic regulation and control is covered.

Card 1/12

Automatic Regulation (Cont.)

SOV/6012

The articles are organized in seven sections, including automatic control systems, automatic process control, computing and decision-making devices, automation components and devices, statistical methods in automation, theory of relay circuits and finite automatic systems, and automated electric drives. No personalities are mentioned. References are given at the end of each article.

TABLE OF CONTENTS:

PART I. AUTOMATIC CONTROL SYSTEMS

Andreychikov, B. I. The effect of dry friction and slippage [play] on error during reverse gear operation of servo-feed systems 3

Andreychikov, B. I. Dynamic accuracy of machine tools with programmed control 14

Card 2/12

Automatic Regulation (Cont.)

SOV/6012

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| Babunashvili, T. G. On dissipation in-the-large in three-dimensional nonautonomous and nonlinear autoregulation system  | 22 |
| Buyanov, B. B. Investigation of optimal control system for a section-mill flying shear  | 28 |
| Bocharov, I. N. Analyzer for distribution curves of random processes in the infralow frequency region   | 36 |
| Butkovskiy, A. G. On the optimal control of processes   | 43 |
| Volik, B. G. Automatic optimizer for chemical production process control  | 52 |
| Gradetskiy, B. G., and Yu. I. Ostrovskiy. Design calculation of an extremal control system featuring storage of maximum in the presence of noise interference | 63 |

Card 3/12

VOLIK, B. I.  
ABRAMOV, F. A., prof.; BERENSHTEYN, S. I., kand. tekhn. nauk; VOLIK,  
B. G., mladshiy nauchnyy sotrudnik

Pneumatic apparatus for automatically maintaining constant pressure in underground mines. Izv. vys. ucheb. zav.; gor. zhur. no.10:149-153 '61. (MIRA 15:10)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut imeni Artoma (for Abramov). 2. Institut avtomatiki i telemekhaniki AN SSSR (for Berenshteyn, Volik). Rekomandovana kafedroy gornoy elektrotekhniki Dnepropetrovskogo gornogo instituta.

(Mining engineering—Equipment and supplies)  
(Atmospheric pressure)

VOLIK, B.G.

PLATE I BOOK EXPLORATION 507/4403

Automatizatsiya SSSR. Institut avtomatizatsii i telemekhaniki  
 Avtomatizatsiya upravleniya [Avtomatskii reobol] (Automatic Control) Collected  
 works [Sbornik] izd. 1980 [1980] 431 p. Krasnoyarsk: 7,500  
 copies printed.

Ed.: Ye. A. Zepkin, Doctor of Technical Sciences, Professor; Ed. of Publishing  
 House: Ye. N. Gilev, Tech. Ed.; O. A. Lashchova.

PREFACE: This collection of reports is intended for scientists and engineers  
 engaged in the study of automation.

CONTENTS: The collection contains reports presented at the 6th Conference of  
 Young Scientists of the Institute of Automation and Telemekhanika of the Academy of Sciences USSR (January  
 1979). The collection covers a wide range of scientific and technical problems  
 connected with automatic control. No personalities are mentioned. References  
 accompany each report.

Diagram, Y. M. Systems of Combined Signals Utilizing Frequency-Pulse Al-  
 tributes for Remote Control of Concentrated Objects 354

Is considering the information theory and the structure of signals, the  
 frequencies have been analyzed in detail the features, combinations,  
 and general classification of signal systems, the author describes the  
 discrete time methods of remote control in which time, polarity, ampli-  
 tude, phase, and signal systems, and combined systems are used in varying  
 degrees. Investigations were conducted using parallel and series signals  
 with a varying number of pulses, amplitude and frequency modulation, and  
 d-c signals with varying pulse duration. There are 8 references, all Soviet.

PART IV. AUTOMATED DRIVE

Bozhenkov, N. A. Reversing D-C Drive Equipped With Magnetic Amplifiers 364  
 A system for the speed regulation of d-c drives which permits the reversal  
 of speed has been designed and experimentally tested at the Institute of  
 Automation and Telemekhanika of the Academy of Sciences USSR. Speed con-  
 trol is obtained by changing, in a magnetic amplifier, the voltage fed in-  
 to the drive's armature. According to the author, this system is free  
 from the defects found in the majority of d-c drive control systems as  
 described in works published on this subject. There are 4 references  
 1 Soviet, and 3 English.

Volik, B. G. Experimental Investigation of Induction Motors With a Solid  
 State Drive 373  
 The author states that sufficiently accurate theoretical methods for  
 determining the rated power of a motor with a solid state motor do not  
 exist, and therefore experimental data has an important value. In the  
 practical realization of a system of speed regulation, it was found that  
 specifications for motors of the AGS series with a Shantar motor were  
 related to the region of low speeds approximately 2.5 to 3 times. The  
 author describes a method used for an accurate determination of admissible  
 loading limits of such motors in a wide range of speeds during continuous  
 operation. He suggests using the obtained data for calculating the rated  
 power of motors of the A and AG series for capacitors ranging from 2 to  
 16 hp. There are 4 references, all Soviet.

ABRAMOV, F. A., prof.; BERENSHTEYN, S. I., kand. tekhn. nauk; VOLIK,  
B. G., mladshiy nauchnyy sotrudnik

Pneumatic apparatus for automatically maintaining constant  
pressure in underground mines. Izv. vys. ucheb. zav.; gor.  
zhur. no.10:149-153 '61. (MIRA 15:10)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy  
institut imeni Artema (for Abramov). 2. Institut avtomatiki i  
telemekhaniki AN SSSR (for Berenshteyn, Volik). Rekomendovana  
kafedroy gornoy elektrotekhniki Dnepropetrovskogo gornogo  
instituta.

(Mining engineering—Equipment and supplies)  
(Atmospheric pressure)

VOLIK, F. E. (Veterinary Doctor, Melitopol'sk Inter-District Veterinary  
Bacteriological Laboratory, Zaporozh'e Oblast', Ukrainian SSR). (Abstracted  
by V. A. ALIKAYEV)

"Simplified method of determining carotene in the liver, the blood  
and eggs..."  
Veterinariya, vol. 39, no. 2, February 1962 pp. 80



VOLIK, P. E., (Veterinary Surgeons, ,elitopol' Veterinary Bact riological  
Laboratory)

Certain problems in diagnosis of listeriosis

Vet rinariya vol. 38, no. 7, July 1961 # 82.

VOLIK, F.Ye., veterin.vrach

Inoculation methods in the bacteriological diagnosis of listeriosis.  
(MIRA 18:4)  
Veterinariia 41 no.3:98-99 Mr '65.

1. Melitopol'skaya veterinarnaya laboratoriya Zaporozhskoy oblasti.

KLESMET, O.I.; VOLIK, F.Ye., veter. vrach; MAKRUSHIN, P.V., kand. veter. nauk; LOZHKIN, N.I., kand. biolog. nauk; NIKOL'SKIY, B.S., nauchnyy sotrudnik

Laboratory practice. Veterinariia 38 no.7:80-84 J1 '61.  
(MIRA 16:8)

1. Respublikanskaya veterinarno-bakteriologicheskaya laboratoriya Latvyskoy SSR (for Klesmet). 2. Veterinarno-bakteriologicheskaya laboratoriya, Melitopol' (for Volik). 3. Saratovskiy zooveterinarnyy institut (for Makrushin). 4. Vsesoyuznyy institut eksperimental'noy veterinarii (for Lozhkin, Nikol'skiy).  
(Listeriosis) (Aureomycin)  
(Milk—Analysis and examination)

VOLIK, I.

Work experience of a district committee trade union. Sov.profsoyuzy  
3 no.2:42-44 F '55. (MIRA 8:4)

1. Instruktor TsK profsoyuza finansovo-bankovskikh rabotnikov.  
(Vasil'yevka District—Trade unions)

VOLIK, N. D.

Belt conveyor drying apparatus for the vegetable drying industry. Moskva, Pishchepromizdat, 1954. 152 p. (54-41071)

TP363.V6

VOLIK, M.S., 'uchitel'

Procedure for setting up structural formulae of inorganic compounds.  
Khim. v shkole 16 no.1:63-64 Ja-F '61. (MIRA 14:1)

1. Srednyaya shkola No.1, g.Ust'-Labinsk.  
(Chemistry--Notation)

VOLIK, N. D.

Lentochnyye konveyernyye sushilki ovoshchesushil'noy promyshlennosti (Belt conveyor drying apparatus for the vegetable drying industry, by) N. D. Volik i T. M. Masakin. Moskva, Pishchepromizdat, 1954. 158 p. illus., diags., tables. Bibliography: p. (156)

SO: N/5  
741.94  
.V9

VOLIK, N.D.

VOLIK, N.D.; NASAKIN, T.N.; LYKOV, M.V., kandidat tekhnicheskikh nauk,  
redaktor.

[Belt conveyor drying apparatus for the vegetable drying industry]  
Lentochnye konveiernye sushilki ovoshchesushil'noi promyshlennosti.  
Moskva, Pishchepromizdat, 1954. 158 p. (MLRA 7:7)  
(Drying apparatus) (Vegetables—Evaporation)



NASAKIN, T.N.; VOLIK, N.D.

Experience of the Mosalsk Dried Vegetable Plant in storing  
potatoes in surface silos. Kons. i ov.prom. 18 no. 5:25-28 My  
'63. (MIRA 16:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy i  
ovoshchesushil'noy promyshlennosti.  
(Potatoes—Storage)

VOLIK, Nikolay Dem'yanovich; NASAKIN, T.N.

[Conveyer-type steam drying apparatus for the food industry]  
Parovye lentochnye sushilki pishchevoi promyshlennosti. 2.,  
perer. 1 dop. izd. Moskva, Pishchepromizdat, 1958. 207 p.  
(Drying apparatus) (MIRA 12:6)

VOLIK, R.N., inzh.

Volumetric weight of the light components of grain mixtures.  
Mekh. i elek. sots. sel'khoz. 21 no.5:54 '63. (MIRA 17:1)

1. Sibirskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta mekhanizatsii sel'skogo khozyaystva.

VCLIK, R.N.

Stirring up a layer of loose material under the action of  
vibration. Nauch. trudy SibVIM no.1:114-127 '63. (MIRA 17:8)

KEKUKH, A.M.; VOLIK, V.D.

Agrometeorological conditions for best sowing in the northeast  
of the Ukrainian S.S.R. and their role in chemization. Trudy  
Ukr NIGMI no.49:63-76 '65. (MIRA 18:8)

VOLIK, V.F., kand. ekonom. nauk

Ways for increasing the effectiveness of growing corn on  
drained lands. Gidr. i mel. 15 no.6:9-14 Je '63.

(MIRA 16:8)

1. Ukrainskiy nauchno-issledovatel'skiy institut gidro-  
tekhniki i melioratsii.

VOLIK, V.Ya.

Experimental morphological study of the innervation of the  
inguinal lymph nodes in the dog. Biul. eksp. biol. i med.  
53 no.2:111-114 F '62. (MIRA 15:3)

1. Iz kafedry gistologii (zav. - prof. N.D. Zaytsev) i  
normal'noy anatomii (zav. - prof. F.A. Volynskiy) Odesskogo  
gosudarstvennogo meditsinskogo instituta imeni N.I. Pirogova.  
Predstavlena deystvitel'nym chlenom AMN SSSR N.A. Krayevskim.  
(LYMPHATICS—INNERVATION)

VOLIK, V.Ya.

Development of the nervous apparatus of inguinal lymphatic nodes  
in man. Arkh. anat., gist. i embr. 48 no.5:34-39 My '65.

(MIRA 19:1)

1. Kafedra gistologii (zav. - prof. N.D. Zaytsev) Odesskogo gosudarstvennogo meditsinskogo instituta imeni N.I. Pirogova. Submitted  
July 8, 1963.



VOLIK, V. YE.

"Prophylaxis of avitaminosis in poultry."

Veterinariya, Vol. 37, No. 6, 1960, p. 65

Vet. Dr. - Melitopol'

VOLIK, Ye. K.

"The Purification and Concentration of the Antianthrax and Antierysipelas of Immune Sera," Trudy Nauchno-Kontrol'nogo Instituta Veterinarnykh Preparatov, No.3, pp. 156-64, 1952

VOLIK, Ye. K. and PLOTNIKOVA, V. A.

"The Depth Method of Cultivating Bacterial Cultures for Obtaining Biological Preparations," Trudy Nauchno-kontrol'nogo Instituta Veterinarykh Preparatov, No.3, pp. 241-52, 1952

Volik, Ye. K.

"Extraction of Immune Sera from the Blood-Forming Elements of the Blood of Producers," Trydu Nauchno-kontrol'nogo Instituta Veterinarnykh Preparatov, No.3, pp. 261-63, 1952

VOLIK, Ye. K.

"The Subsurface Method of Growing Pathogenic Micro-organisms and Its Use in Producing Veterinary Biological Preparations." Dr Vet Sci, All-Union Inst of Experimental Veterinary Medicine, Moscow, 1953. (RZhBiol, No 6, Nov 54)

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SO: Sum. No. 521, 2 Jun 55

VOLIK, Ye.K., kandidat veterinarnykh nauk.

Scientific basis and principles of culturing microorganisms by the  
sub-surface method and its utilization in biological industry. Trudy  
Gos. nauch.-kont.inst.vet.prep. 4:46-59 '53. (MLRA 7:10)  
(Bacteriology--Cultures and culture media)

VOLIK, Ye.K., kandidat veterinarnykh nauk.

Practical methods of utilizing and feeding producers of immunogenic  
serums. Trudy Gos.nauch.-kont.inst.vet.prep. 4:257-268 '53. (MLRA 7:10)  
(Serum) (Laboratory animals)

VOLIK, Ye.K., doktor veterinarnykh nauk; NIKOLAYEVA, Ye.Ya., mladshiy  
nauchnyy sotrudnik.

Bactericidal action of ultraviolet lamps. Veterinariia 34 no.8:81-  
82 Ag '57. (MLRA 10:9)

1. Gosudarstvennyy nauchno-kontrol'nyy institut veterinarnykh pre-  
paratov Ministerstva sel'skogo khozyaystva SSSR,  
(Ultraviolet rays--Physiological effect)



VOLIK, Yu.P.

Cooling dies in hot-forging on crank presses. Avt. prom. 31  
no.8:42-44 Ag '65. (MIRA 18:8)

1. Nauchno-issledovatel'skiy tekhnologicheskii institut  
avtomobil'noy promyshlennosti.

VOLIK, Yu.P., inzh.

Automatic transfer devices. Mekh.i avtom.proizv. 16 no.2:34-  
41 F '62. (MIRA 17:3)

YERMOLAYEV, Ye.N.; CHESNOKOV, V.K.; VOLIK, Yu.P.

Ejection devices for drop-forging presses manufacturing crankshafts.  
Avt. prom. 27 no. 5:38-41 My '61. (MIRA 14:5)

1. Nauchno-issledovatel'skiy tekhnologicheskiy institut  
avtomobil'noy promyshlennosti.  
(Power presses) (Crankshafts)

VOLIK, Yu.P.; BOYTSOV, V.V.

Bottom stripping system in impact extrusion. Kuz.-shtam. proizv.  
3 no.1:40-43 Ja '61. (MIRA 14:1)

(Extrusion (Metals))

VOLIK, Yuriy Prokof'yevich; YERMOLAYEV, Yevgeniy Nikolayevich;  
CHESNOKOV, Viktor Kuz'mich; STEL'MAKOV, S.M., red.;  
FREGER, D.P., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Ejecting device for forging on crankshaft presses: stenographic record of a lecture course] Vytalkivaiushchie ustroistva pri shtampovke na krivoshipnykh goriacheshtampovochnykh pressakh; stenogramma leksii. Leningrad, 1962. 26 p.

(Forging) (Power presses)

(MIRA 15:8)

VOLIK, Yu.P.; BOYTSOV, V.V.; SAVIN, A.M.

Stamping automobile crosspiece forgings in sectional dies.  
Avt.prom. 23 no.4:39-42 Ap '62.

(MIRA 15:4)

1. Nauchno-issledovatel'skiy tekhnologicheskiy institut  
avtomobil'noy promyshlennosti.  
(Dies (Metalworking))

VOLIKOV, A.A.

BERKUTOV, A.N., polkovnik med. sluzhby, prof.; ~~VOLIKOV, A.A., podpolkovnik~~  
med. sluzhby, kand. med. nauk; ~~SMETANIN, L.A., major~~ med. sluzhby

Potentiated anesthesia and hypothermia under clinical conditions  
and the possibility of using them under field conditions. Voen. med.  
zhur. no.1:50-56 Ja '57 (MIRA 12:7)

(ANESTHESIA,  
potentiated, in clin. & military field cond. (Rus))  
(HYPOTHERMIA,

in surg. in clin. & military field cond. (Rus))  
(MEDICINE, MILITARY AND NAVAL,  
hypothermia & potentiated anesth. in military clin. &  
field cond. (Rus))

VOLIKOV. A.A., kandidat meditsinskikh nauk

Clinical use of Russian curere-similants in endotracheal gas  
and ether anesthesia. Vest.khir.74 no.8:10-18 D '54.(MLRA 8:10)

1. Iz kliniki obshchey khirurgii (nach prof. V.I.Popov) Voenno-  
meditsinskoy ordena Lenina akademii im. S.M.Kirova. Adres avtora;  
Leningrad 9, pr. K. Marksa, d.5, kv.3.

(MUSCLE RELAXANTS,  
in anesht.endotracheal)  
(ANESTHESIA, ENDOTRACHEAL,  
adjuvants, musc.relaxants)



VOLIKOV, A.A.

Two cases of tumors of the carotid gland. Khirurgiia, no.11:55-58  
N '55. (MLHA 9:6)

1. Iz kafedry obshchey khirurgii (nach.-general-mayor meditsinskoy  
sluzhby prof. V.I. Popov) Voenno-meditsinskoy akademii imeni S.  
M. Kirova)

(CAROTID BCDY, neoplasms  
surg. & pathol.)

VOLIKOV, A. A.

Proserine as an antidote to the action of preparations possessing curare-like properties for man. A. A. Volikov. *Verkh Khirurgii* 1936, No. 4, 46-8; *Referat. Zhur., Khim. Biol. Khim.* 1937, No. 442.—Under observation were 420 patients subjected to a variety of surgical operations performed with the patients under intratracheal narcosis in combination with Soviet produced curare-like preps., such as diptacine, paramione, etc. Proserine (I) was used as the antidote. I was found to possess variable and rapidly transient antagonistic properties to the action of diptacine and paramione. It had to be administered in doses not less than 2.5-4.0 ml. of 0.05% soln. in cases of incomplete curare-like muscular weakening. In only limited numbers of patients was it effective.

B. S. Levine

VOLIKOV, A.A., Kandidat meditsinskikh nauk (Leningrad, pr. Karla Marksa, d.3, kv.3); FILIN, V.I., kandidat meditsinskikh nauk

Modern forms of general anesthesia in surgery of abdominal viscera  
[with summary in English, p.158] Vest.khir. 77 no.8:3-17 Ag '56.

(MIRA 9:10)

1. Iz kafedry voyenno-polevoy khirurgii (nach. - prof. A.N. Berkutov)  
i kafedry obshchey khirurgii (nach. - prof. V.I. Popov) Voenno-  
meditsinskoy ordena Lenina akademii im. S.M. Kirova.

(ABDOMEN, surg.  
endotracheal anesth.)

(ANESTHESIA, ENDOTRACHEAL  
in abdom. surg.)

OLIKOV, A. A.

"The Use of Potentiated Anesthetization and Hypothermia in the Treatment of Patients With Severe Traumatic Injuries," by Prof A. N. Berkutov, A. A. Volikov, Candidate of Medical Sciences; and L. A. Smetanin, Clinic of Battlefield Surgery (head, Prof A. N. Berkutov), Military Medical Order of Lenin Academy imeni S. M. Kirov, Vestnik Khirurgii imeni Grekova, Vol 77, No 9, Sep 56, pp 19-28

The authors, basing their conclusion on 96 operations for severe traumatic injuries, think that massive blood transfusion is the best method to overcome the shock of seriously injured patients in third-degree shock, and that neuroplegic drugs combined with local anesthesia and especially potentiated ether-oxygen narcosis and hypothermia are very effective methods for shock treatment.

The more severe the condition of the patient and the more prolonged the surgical intervention is to be, the more one is forced to resort to potentiated ether-oxygen intratracheal anesthesia.

Hypothermia is best applied in cases of extremely severe and extensive injuries and in cases of marked injuries to the respiratory mechanism and hemodynamics. (U)

- 82 -

54M.1374

VOLIKOV, A. A.

146. Successful Method of Resuscitation of Patient Frozen for 10 Hours at 18°C

In the article, "Resuscitation of a Person From a Freezing Condition," A. A. Volikov, Candidate of Medical Sciences of the Clinic of Military Field Surgery, Military Medical Academy imeni S. M. Kirov, mentions that the chief factor in the pathogenesis of general supercooling, according to the opinion of many scientists, including A. L. Izbinskiy, is hypoxia of tissues, especially the brain tissue. Hypoxia is accompanied by profound disturbances in nervous regulation (especially cerebral cortex regulation) and carbohydrate and other types of metabolism. This hypoxia is most acute when body temperature is between 29 and 27°C, for at this temperature the metabolic rate is 200% or more while oxygen tension is decreased to half or less. Therefore, decreasing the metabolic rate and decreasing the oxygen requirement of tissues seem most advantageous in resuscitating frozen victims.

The author describes a method using neuroplegic substances, ether-oxygen intra-arterial narcosis, curare-like relaxants, and controlled respiration simultaneously with quick warming up in warm-water bath and intravenous administration of glucose and ascorbic acid.

A case is described in which a patient was found under snow, where he had lain for 10 hours at 18°C. The following temperatures were recorded: subaxillary 22, oral 24, and rectal 27°C. The patient was discharged after 82 days in good condition as a result of the method of therapy described above. (Vestnik Khirurgii, No 4, Apr 57, pp 98-100)

(U)

VOLKOV, A.A., dotsent

Determining the moment of friction between a drilling tool  
and a working face. Izv. vys. ucheb. zav.; gor. zhur. no.6:  
68-73 '61. (MIRA 16:7)

1. Khar'kovskiy gornyy institut. Rekomendovana kafedroy avto-  
matizatsii proizvodstvennykh protsessov.  
(Boring)

YOLIKOV, A.A., dotsent

Muscle relaxants in the setting of traumatic dislocations.  
Vest.khir. no.1:118-123 '62. (MIRA 15:1)

1. Iz kliniki voyenno-polevoy khirurgii (nach. - prof. A.N.  
Berkutov) Voyenno-meditsinskoy ordena Lenina akademii im.  
S.M. Kirova.

(MUSCLE RELAXANTS)

(DISLOCATIONS)



VOLIKOV, A.A., kand.med.nauk (Leningrad, K-9, Lesnoy pr.4, kv.65)

Surgical use of neuroplegic drugs combined with anesthetic methods.  
Nov.khir.arkh. no.5:13-21 S-O '59. (MIRA 13:3)

1. Kafedra voyenno-polevoy khirurgii (nachal'nik - prof. A.N.  
Berkutov) Voenno-meditsinskoy akademii imeni S.M. Kirova.  
(AUTONOMIC DRUGS) (ANESTHESIA)

VOLIKOV, A.A., kand. med. nauk (Leningrad, Lesnaya pr. 4, kv. 65)

Use of neuroplegic drugs in conjunction with anesthetics in surgery. Vest. khir. 82 no.6:101-109 Je '59. (MIRA 12:8)

1. Iz kliniki voyenno-polevoy khirurgii (nach. - prof. A.N. Berkutov)  
Voyenno-meditsinskoy ordena Lenina akademii im. S.M. Kirova.  
(AUTONOMIC DRUGS) (ANESTHETICS)

BERKUTOV, A.N., polkovnik med. sluzhby, prof.; VOLIKOV, A.A., podpolkovnik  
med. sluzhby, kand. med. nauk; SMETANIN, L.A., mayor med. sluzhby

Potentiated anesthesia and hypothermia under clinical conditions  
and the possibility of using them under field conditions. Voen. med.  
zhur. no.1:50-56 Ja '57 (MIRA 12:7)

(ANESTHESIA,

potentiated, in clin. & military field cond. (Rus))

(HYPOTHERMIA,

in surg. in clin. & military field cond. (Rus))

(MEDICINE, MILITARY AND NAVAL,

hypothermia & potentiated anesth. in military clin. &  
field cond. (Rus))

BERKUTOV, A.N., prof.; VOLIKOV, A.A., kand. med. nauk

Potentiated anesthesia in emergency surgery and traumatology. Voen.  
med. zhur. no.2:26-33 F '59. (MIRA 12:7)

(ANESTHESIA

potentiated anesth. in emergency surg. & traumatol. (Rus))

(WOUNDS AND INJURIES, surg.

anesth., potentiated, in traumatol. (Rus))

(EMERGENCIES

potentiated anesth. in emergency surg. (Rus))

VOLIKOV, A.A., kand.med.nauk (Leningrad, pr.K.Marksa, d.3, kv.3); SERIKOV, B.V.

Use of curarelike preparations in the reduction of traumatic dislocations. Vest.khir. 82 no.4:129-131 Ap '59.

(MIRA 12:6)

1. Iz kliniki voyenno-polevoy khirurgii (nach. - prof. A.N. Berkutov) Voenno-meditsinskoy ordena Lenina akademii im. S.M.Kirova.

(CURARELIKE SUBSTANCES) (DISLOCATIONS)

VOLIKOV, A.A., podpolkovnik med. sluzhby, kand. med. nauk

Some problems in technics of intratracheal and potentiated anesthesia.  
Voen.-med. zhur. no.6:38-47 Je '58. (MIRA 12:7)

(ANESTHESIA, ENDOTRACHEAL

indic. & technic of admin. (Rus))

(ANESTHESIA

potentiation, indic. & methods (Rus))

(HIBERNATION, ARTIFICIAL,

(Rus))

(HYPOTHERMIA,

(Rus))

USSR/Human and Animal Physiology. Effects of Physical Factors.  
Thermal Factor.

T-13

Abs Jour: Ref Zhur-Biol., No 12, 1958, 56168.

Author : Volikov, A. A.

Inst :

Title : The Process of Reviving Human Beings from a Frozen  
State.

Orig Pub: Vestn. khirurgii, 1957, 78, No 4, 98-100.

Abstract: No abstract.

Card : 1/1

VOLIKOV, A.A.

VOLIKOV, A.A., kandidat meditsinskikh nauk (Leningrad, pr. Karla Marksa.  
3, kv.3)

Treatment following prolonged exposure to freezing temperature.  
Vest.khir. 78 no.4:98-100 Ap '57. (MLR 10:9)

1. Iz kliniki voyenno-polevoy khirurgii (nach. - prof. A.N.Berkutov)  
Voyenno-meditsinskoy ordena Lenina akademii im. S.M.Kirova.  
(COLD injurious effects,  
freezing, management (Rus))



EXCERPTA MEDICA Sec.9 Vol.11/11 Surgery Nov 5.

Volikov, A.A.

5706. VOLIKOV A.A. and FILIN V.I. Inst. of Milit.-Field Surg.; Inst. of Gen. Surg., Milit. Med. Acad., Leningrad. \*Modern views on general narcotization in operations on organs in the abdominal cavity (Russian text) VESTN.KHIR. 1956, 77/8 (3-17) Tables 2 illus. 62

Intratracheal anaesthesia with a mixture of ether and nitrous oxide was successfully used in 55 cases; muscle relaxants were simultaneously used in 335; potentiated narcosis in 111 and artificial hypothermia in 32. In potentiated narcosis patients received luminal (gardenal) and dimedrol (benadryl) the day before. One hour prior to anaesthesia an i. m. injection of a 'flowing cocktail' consisting of aminazin, dimedrol and lidol (dolocal) was given, followed, 15-30 min. afterwards, by a s. c. injection of atropine or scopolamine and pantopon. All the drugs were used in average therapeutic doses. Intubation was carried out under deep ether or pentothal anaesthesia. Hypothermia was induced by cooling the patients in a cold water bath under deep potentiated anaesthesia and extensive use of muscle relaxants. The authors consider artificial hypothermia the most effective, but at the same time dangerous, method. However, even with artificial hypothermia it is essential to block the reflex zones with the aid of novocaine. The following complications were observed during hypothermia: pulse arrhythmia in 7 cases, rigor and clonus of striped muscle in 8 cases, hyperthermia in 3 cases. Potassium chloride, vit. B<sub>1</sub>, muscle relaxants and pyramidon were used for prophylaxis and treatment of these complications. Seven patients who had been subjected to cooling developed pneumonia in the postoperative period, 2 developed peritonitis, one had a gastric haemorrhage and one thrombosis of the inferior vena cava. No complications were encountered in cases with potentiated anaesthesia. The authors are of the opinion, that potentiated anaesthesia best meets the requirements of abdominal surgery.

Shanin - Leningrad

References 28.

L 6193-65 EDA(s)-2/E 218/HA/d/70(v) T/E-(t)/EAP(k)/EAP(b)/ENA(c)  
 Pp. 4 JJP(c) JD/HM/HW/JG/WB  
 S/0129/64/000/010/0039/0040

ACCESSION NR: AP4047509

AUTHOR: Shapiro, M. B. ; Volikova, I. G.

TITLE: The titanium-carbon ratio in stainless steels

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 10, 1964, 39-40

TOPIC TAGS: intercrystalline corrosion, titanium carbide, carbide dissociation, chromium carbide, titanium carbon ratio

ABSTRACT: The hardening temperature greatly affects the tendency of steel to intercrystalline corrosion. The dissolution of titanium carbide in a solid solution is accompanied by a complete temperature-dependent carbide dissociation, its degree increasing at elevated temperatures which, in turn, promotes carbon and titanium concentrations in the solid solution. The titanium content in the solid solution increases as carbon decreases. If the entire carbon were to be bound into titanium carbide, the Ti-C ratio must be the greater, the higher the hardening temperature (see Fig. 1 of Enclosure). In 25% Cr steel, intercrystalline

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ACCESSION NR: AP4047509

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corrosion is absent after hardening from 1150C and holding for 5 minutes with a Ti-C ratio exceeding 7. An increase in the temperature to 1200C requires a higher Ti-C ratio. Stabilizing annealing within the 870 to 900C range is recommended since the dissociation of titanium carbide is smaller than the dissociation of chromium carbide. Within this temperature range a stoichiometric Ti-C ratio prevents a tendency to intercrystalline corrosion. However, in large products weld joints intercrystalline corrosion is associated with a maximum Ti-C ratio in the steel. Orig. art. has 1 figure and 1 equation.

ASSOCIATION: NIKHIMMASH

SUBMITTED: 00

ENCL: 01

SUB CODE: MM

NR REF SOV: 004

OTHER: 001

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L 361-8-55  
ACCESSION NR: AP4047509

ENCLOSURE 01

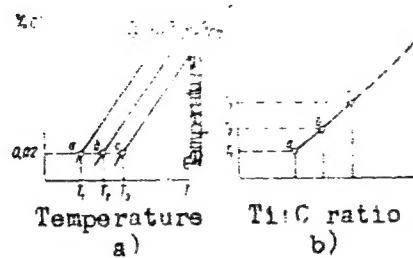


Fig. 1

The effect of the Ti-C ratio on the stabilizing annealing temperature

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